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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/537,783
Filing Date: June 06, 2005
Appellant(s): BOLZA-SCHUNEMANN, CLAUS AUGUST

Douglas R. Hanscom
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 3/25/08 appealing from the Office action mailed 1/28/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

JP 01-232045	Tsuneo	09-1989
3,688,694	Preuss et al.	09-1972

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 102, 106, 110, 111, 116, 118, 121, and 122 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuneo (JP 01-232045) in view of Preuss et al. (US 3688694).

Regarding claim 102, Tsuneo teaches "a method for controlling rollers in a dampening agent roller train of a printing unit (abstract) including:

providing a source of a dampening agent (see the source of dampening solution which is in contact with item 2 in the figure);

providing a first roller having a first roller surface adapted for taking up a dampening agent from said source of dampening agent (item 2);

providing a second roller having a second roller surface contacting said first roller surface and receiving said dampening agent directly from said first roller surface(item 3);

providing a forme cylinder having a forme cylinder surface speed of rotation (item 8);

including said first and said second rollers in a roller train usable for conveying said dampening agent to said forme cylinder (see the configuration of items 2 and 3 in the figure);

providing a first roller drive motor for driving said first roller (item 10);

rotating said first roller at a first roller surface speed using said first roller drive motor (abstract: constitution);

providing a second roller drive motor for driving said second roller at a second roller surface speed independently said first roller (item 11);

controlling each of said first roller drive motor and said second roller drive motor independently (abstract: constitution);

rotating said second roller at said second roller surface speed using said second drive motor (abstract: constitution)."

Tsuneo fails to specifically teach:

"providing a forme cylinder drive motor;" said motor being controlled independently of said first and second motors, and "using said forme cylinder drive motor and rotating said forme cylinder at said forme cylinder surface speed of rotation."

However, Tsuneo does teach that the plate cylinder has its own speed of rotation, which is independent from rollers 2 and 3(Abstract: constitution) and one having ordinary skill in the art would recognize that the plate cylinder of Tsuneo would be provided with a motor to rotate it at its own speed of rotation.

Tsuneo also fails to teach:

"that the second roller is rotated at a speed different than the first roller speed;

selecting said second roller surface speed being greater than said first roller surface speed;

selecting both said first roller surface speed and said second roller surface speed being less than said forme cylinder surface speed of rotation;

setting both of said first roller surface speed and said second roller surface speed as a function of said forme cylinder surface speed;

selecting a slippage between said first roller surface and said second roller surface by said controlling of each of said first roller drive motor and said second roller drive motor independently, said selected slippage resulting from said difference between said first roller surface speed and said second roller surface speed which is greater than said first roller surface speed;

controlling said selected slippage between said first roller surface and said second roller surface, using said first and second drive motors;

setting said selected slippage between said first roller surface and said second roller surface as a function of said forme cylinder surface speed; and

controlling an amount of said dampening agent supplied to said forme cylinder using said roller train by controlling said selected slippage between said first roller surface and said second roller surface as said function of said forme cylinder surface speed;

providing said first roller surface speed at less than 2 m/s."

Regarding the limitation of setting the first roller surface speed at less than 2 m/s, one having ordinary skill in the art would recognize that changing speed of the first roller results in changing the amount of dampening solution applied to the form cylinder. It has been held that it is not inventive to discover the optimum or workable ranges of a process by routine experimentation. It would have been obvious to one of ordinary skill in the art at the time of the invention, through routine experimentation, to provide "first roller surface speed at less than 2 m/s" in order to achieve an optimum amount of dampening solution on the form cylinder, and/or to prevent spraying or splattering of dampening water during take-up.

Preuss et al. disclose a dampening device with a roller train with a first roller and a second roller (figure 1, abstract), and a plate cylinder driven separately from the first and second rollers (column 6, lines 2-3). Preuss et al. teach rotating the second roller at a speed higher than the first roller in order to create a slippage and to more accurately control the flow of dampening fluid (column 2, lines 10-19). Preuss et al. also teach controlling the slippage by regulating the speed differential between the first and

second rollers (column 2, lines 23-26). Finally, Preuss et al. teach changing the dampening solution supply by said slippage regulation in response to the speed of said forme cylinder (column 2, lines 40-47). The method of Preuss et al. results in a greatly improved uniformity of the flow of dampening fluid (column 1, lines 63-68). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to modify the method of Tsuneo by rotating the second roller at a speed higher than the first roller in order to create a slippage, and, further, to control the slippage, using the independent motors of Tsuneo, in accordance with an operating condition of the forme cylinder by regulating the speed differential between the first and second rollers in order to improve the uniformity of flow of dampening fluid.

The limitation of “setting both of said first roller surface speed and said second roller surface speed as a function of said forme cylinder speed” is met by the method of Preuss et al. since Preuss et al. teach changing the dampening solution supply by changing the slippage (column 2, lines 15-19) which is controlled by changing the speeds of both first and second rollers (column 2 lines 23-26) and that the dampening solution supplied is a function of the forme cylinder speed (column 2, lines 40-46). The act of "selecting a slippage” is inherent in the process as one must inherently select a slippage which results in a desired amount of dampening solution being applied to the forme cylinder.

Finally, while neither Tsuneo nor Preuss et al. specifically teach “rotating said forme cylinder at a forme cylinder speed and selecting said first roller surface speed and said second roller surface speed both being less than said forme cylinder speed,”

Preuss et al. teach that all three cylinders are rotated independently, as discussed above. Preuss et al. further teach that the surface speeds of the first and second rollers are set independently of the forme cylinder in order to control the amount of dampening solution provided to the forme cylinder; for example, more is provided at startup, and less is provided at higher press speeds (column 2, lines 40-47). Inherently, in the latter example, the first and second rollers need lower speeds. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to set the surface speeds of the first and second rollers lower than the surface speed of the forme cylinder in order to provide less dampening solution to the forme cylinder when less solution is required by the printing process. It is noted that the steps of "selecting" are inherent steps in the method of Preuss et al. since one must inherently 'select' a speed in order to rotate the cylinders.

(10) Response to Argument

Appellant's Argument 1

Section a)

Appellant states that no translation of the Tsuneo reference was relied upon. Examiner agrees with this statement, but also is providing a translation for the record.

Section b)

Appellant argues that Tsuneo does not teach that the plate cylinder has its own speed of rotation which is independent from rollers 2 and 3. Examiner disagrees. Tsuneo teaches that "regardless of the speed change of a plate cylinder" water can be continuously supplied to the plate cylinder by "providing an exclusive motor for

respectively independently controlling the driving of a water fountain roller and that of a water transfer roller." Since the rollers 2 and 3 are independently controlled, and the water can be supplied to the plate cylinder *regardless* of its speed, clearly the plate cylinder speed of rotation is independent from the speeds of rollers 2 and 3.

Appellant's remarks concerning what Tsuneo means by "a definite water film" are noted, but Examiner points out that regardless of what Tsuneo means, "a definite water film" still meets the limitation of a "dampening agent."

Section c)

Examiner agrees with Appellant's assessment of the different embodiments of Preuss et al.

Examiner would like to point out that the second embodiment, as characterized by Appellant, shows that the plate cylinder 3 is rotated separately from the first roller 5 and the second roller 6.

Section d)

Appellant argues that the citation to column 6, lines 2-3 of Preuss et al. teaching that the plate cylinder is driven separately from the first and second rollers is inaccurate, citing only the first, third and fourth embodiments as to proof. While column 6, lines 2-3 of Preuss et al. may not specifically show that the plate cylinder is driven separately from the first and second rollers, the fact remains that the second embodiment shows this fact, as is admitted Appellant in Appellant's characterization of the third embodiment. Thus, Preuss et al. teach driving the plate cylinder separately from the first and second rollers.

Appellant's argument that the objectives of Preuss et al. are different from those of Appellant is irrelevant; the fact that Appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

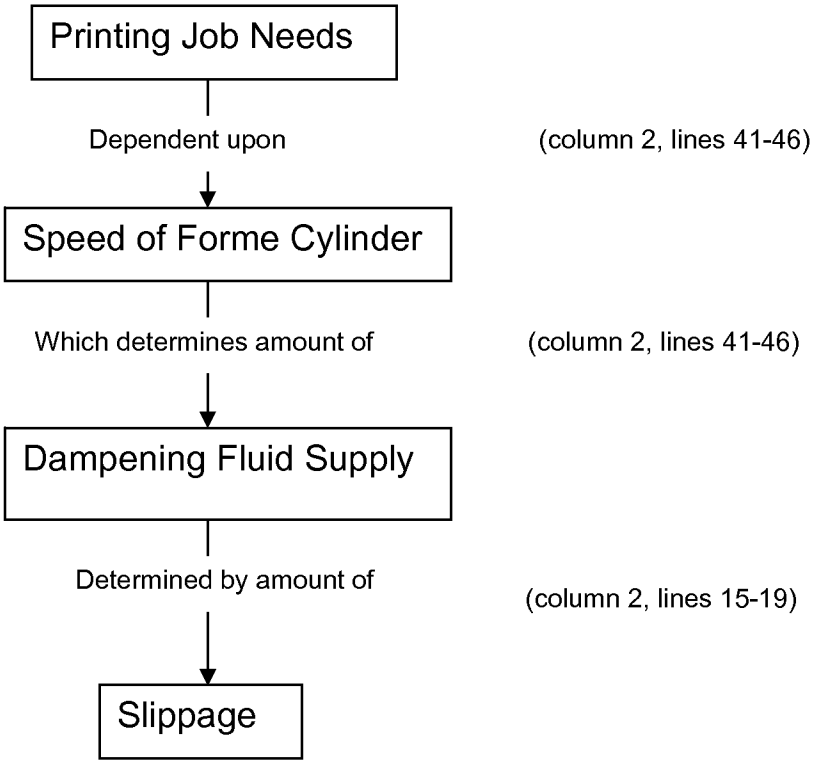
Preuss et al. clearly teach that '[t]he ***flow*** of dampening fluid by changing the total slippage can no be very accurately effected by the division of total slippage into two slippage factors (column 2, lines 15-18).' (Emphasis added.) As admitted by Appellant, Preuss et al. teach dividing the slippage into two slippage factors by driving the second roller at a speed higher than the first roller (column 2, lines 10-15). Therefore, Preuss et al. teach that ***the flow*** (which includes, e.g., the amount) of dampening fluid is ***effected*** (that is, controlled) by the control of the slippage, which is controlled by rotating the second roller at a higher speed than the first roller. This is not the same as teaching "the reduction and accurate regulation of slippage *to improve the uniformity of flow* of the dampening fluid," as is suggested by Appellant. (Emphasis added.) While it may be true that the uniformity of flow of the dampening fluid may also occur, it is not the *only* benefit or objective which Preuss et al. teach.

Appellant further challenges the assertion by Examiner that Preuss et al. teach changing the dampening solution supply by said slippage regulation in response to the speed of said forme cylinder. However, Appellant admits (at the bottom of page 18 of Appellant's Brief) that Preuss et al. teach selecting a division of the slippage (which inherently selects a specific slippage between the first and second rollers) in

accordance with the specific requirements of the printing job. Furthermore, Appellant admits that Preuss et al. teach that the supply of dampening fluid can be increased or decreased depending on the speed of the press (middle paragraph on page 18 of Appellant's Brief).

The requirements of the print job inherently include the speed at which the press is operated (i.e., when more prints are required, the press is operated at a higher speed). The speed at which the press is operated depends upon, if it is not defined by, the speed of the plate cylinder (i.e., when more prints are required, the plate cylinder must be operated at a higher speed in order to produce more prints).

Therefore, since Preuss et al. teach changing the flow, *or amount,* of the dampening fluid by changing the slippage, and further teach changing the dampening fluid amount in response to the print needs (which inherently means the speed of the plate cylinder), Preuss et al. teach, *at the very least* ***implicitly***, "changing the dampening fluid supply by said slippage regulation in response to the speed of said forme cylinder." This logic is simplified in the flow diagram below.



Appellant's statement that regulation of slippage is just as important to Preuss et al. as is the reduction of slippage is not argued by Examiner; it is, however, irrelevant to the discussion at hand since Preuss et al. clearly teach controlling the flow of dampening fluid by regulating the slippage between the first and second rollers, as shown above.

Section e)

Appellant states in the last sentence of the first paragraph of page 19 of Appellant's Brief that Preuss et al. teach "that the way to best attain such a result is to reduce the slippage between the rollers." While this statement is partially accurate, Appellant neglects to mention that, by Appellant's own admission in the previous

sentence, that Preuss et al teach the best way to improve the uniformity of flow is through *both* the reduction of slippage *and* the regulation of said slippage.

Appellant further states that the division of the slippage into the two slippage factors causes a reduction in the total slippage, which then greatly improves the uniformity of the flow of dampening fluid. While this is true, Appellant has again neglected column 2, lines 15-19 which state that another objective is obtained: specifically, to accurately effect the ***flow*** (which includes, e.g., the amount) of the dampening fluid.

Next, Appellant questions the assertion by Examiner that it would be obvious to set the surface speed of the first and second rollers lower than the surface speed of the forme cylinder in order to provide less dampening solution to the forme cylinder when less is required by the printing process. Appellant points to two supposed errors in the conclusion.

First, Appellant argues that the rollers 1, 6 and 7 rotate with the same circumferential speed as the plate cylinder. While it is true that the embodiment relied upon by Appellant in this argument shows that they all rotate with the same circumferential speed, it is merely *an* embodiment. Again, as admitted by Appellant, the second embodiment of Preuss et al. is one in which the rollers 5 and 6 are operated independently of the plate cylinder (figure 3). Thus, Appellant's argument with respect to this embodiment is moot. As an aside, Appellant, in this argument, implies that Examiner stated "that Preuss et al. teach the setting of the surface speeds of the first

and second rollers lower than the surface speed of the forme cylinder." This is not accurate. What was actually stated regarding this matter was:

> "Preuss et al. further teach that the surface speeds of the first and second rollers are set independently of the forme cylinder in order to control the amount of dampening solution provided to the forme cylinder; for example, more is provided at startup, and less is provided at higher press speeds (column 2, lines 40-47). Inherently, in the latter example, the first and second rollers need lower speeds. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to set the surface speeds of the first and second rollers lower than the surface speed of the forme cylinder in order to provide less dampening solution to the forme cylinder when less solution is required by the printing process."

Clearly, the limitation of setting the surface speeds of the first and second rollers lower than the surface speed of the forme cylinder was met by a statement of obviousness, further rendering moot the first argument presented by Appellant on this matter.

The second supposed error is derived from the Appellant's interpretation of column 2, lines 41-46. Appellant incorrectly interprets this section as stating that at high speeds of the press, evaporation is relatively less than when the press is started.

However, Appellant is misconstruing the teaching of Preuss et al. Preuss et al. state:

> "Such independent drive permits programming for an increased supply of dampening fluid when the press is started ***or*** for a reduced supply at high speeds of the press as evaporation is then relatively lower." (Emphasis added.)

Appellant has mistakenly related the statements on either side of the 'or.' Appellant has interpreted the second part of this sentence as stating "for a reduced supply at high speeds of the press as evaporation is then relatively lower than when the press is started." However, as one having ordinary skill in the art would understand and appreciate, the second part of the sentence could be rewritten as "for a reduced supply at high speeds of the press as evaporation is then relatively lower *than at low speeds of the press*."

Taking the correct interpretation of this sentence of Preuss et al. then, one having ordinary skill in the art would learn from Preuss et al. that the higher the press speed, the *relative* supply of dampening solution to press speed is *lower*. Therefore, as the press speed increases, the *relative* supply of dampening solution should decrease. As stated in the rejection, and unchallenged by Appellant, at high press speeds, the first and second rollers would inherently need lower speeds (than at lower press speeds).

Therefore, the limitation of rotating the first and second rollers at a speed lower than the forme cylinder is still deemed to be met by the statement of obviousness, as outlined in the above rejection.

Appellant's Argument 2

Appellant presents no further arguments with regards to the remaining independent claims; therefore no response by Examiner is needed here.

Appellant's Argument 3

Section a) Point 7

Appellant, essentially, again argues that Tsuneo does not teach that the plate cylinder has its own speed of rotation which is independent from rollers 2 and 3. Examiner disagrees. Tsuneo teaches that "regardless of the speed change of a plate cylinder" water can be continuously supplied to the plate cylinder by "providing an exclusive motor for respectively independently controlling the driving of a water fountain roller and that of a water transfer roller." Since the rollers 2 and 3 are independently controlled, and the water can be supplied to the plate cylinder *regardless* of its speed, clearly the plate cylinder speed of rotation is independent from the speeds of rollers 2 and 3.

Appellant again also states that Preuss et al. do not "teach the control of the supply of dampening fluid by controlling slippage between the two rollers by varying their respective surface speeds." Examiner has already addressed this argument in sections d) and e) of Argument 1 above. As such, that response is hereby repeated.

Section b) Point 9

Appellant challenges the conclusion of obviousness asserting that the conclusion of obviousness was based on hindsight. Examiner again asserts that the conclusion of

obviousness was properly based upon the teachings found in the prior art of record, or upon the general knowledge of one having ordinary skill in the art. See the rejection of claim 102 above.

Section c) Point 10

Appellant again repeats the arguments from sections d) and e) of Argument 1 above pertaining to the combination of Preuss et al. with Tsuneo. Examiner's responses to those arguments are repeated below.

Appellant's argument that the objectives of Preuss et al. are different from those of Appellant is irrelevant; the fact that Appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Preuss et al. clearly teach that '[t]he ***flow*** of dampening fluid by changing the total slippage can now be very accurately effected by the division of total slippage into two slippage factors (column 2, lines 15-18).' (Emphasis added.) As admitted by Appellant, Preuss et al. teach dividing the slippage into two slippage factors by driving the second roller at a speed higher than the first roller (column 2, lines 10-15). Therefore, Preuss et al. teach that ***the flow*** (which includes, e.g., the amount) of dampening fluid is ***effected*** (that is, controlled) by the control of the slippage, which is controlled by rotating the second roller at a higher speed than the first roller. This is not the same as teaching "the reduction and accurate regulation of slippage *to improve the*

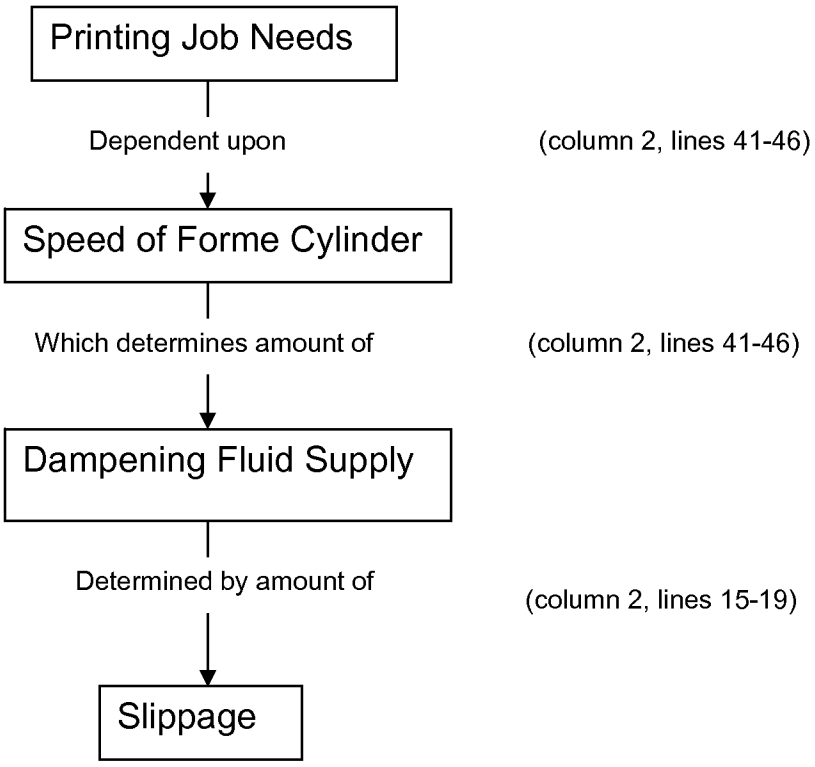
uniformity of flow of the dampening fluid," as is suggested by Appellant. (Emphasis added.) While it may be true that the uniformity of flow of the dampening fluid may also occur, it is not the *only* benefit or objective which Preuss et al. teach.

Appellant further challenges the assertion by Examiner that Preuss et al. teach changing the dampening solution supply by said slippage regulation in response to the speed of said forme cylinder. However, Appellant admits (at the bottom of page 18 of Appellant's Brief) that Preuss et al. teach selecting a division of the slippage (which inherently selects a specific slippage between the first and second rollers) in accordance with the specific requirements of the printing job. Furthermore, Appellant admits that Preuss et al. teach that the supply of dampening fluid can be increased or decreased depending on the speed of the press (middle paragraph on page 18 of Appellant's Brief).

The requirements of the print job inherently include the speed at which the press is operated (i.e., when more prints are required, the press is operated at a higher speed). The speed at which the press is operated depends upon, if it is not defined by, the speed of the plate cylinder (i.e., when more prints are required, the plate cylinder must be operated at a higher speed in order to produce more prints).

Therefore, since Preuss et al. teach changing the flow, *or amount,* of the dampening fluid by changing the slippage, and further teach changing the dampening fluid amount in response to the print needs (which inherently means the speed of the plate cylinder), Preuss et al. teach, *at the very least* ***implicitly***, "changing the

dampening fluid supply by said slippage regulation in response to the speed of said forme cylinder." This logic is simplified in the flow diagram below.



Appellant's statement that regulation of slippage is just as important to Preuss et al. as is the reduction of slippage is not argued by Examiner; it is, however, irrelevant to the discussion at hand since Preuss et al. clearly teach controlling the flow of dampening fluid by regulating the slippage between the first and second rollers, as shown above.

Appellant's argument that Preuss et al. do not teach or suggest setting a selected slippage between the first roller surface and the second roller surface as a function of the forme cylinder surface speed is found to be in error because of a misinterpretation

of column 2, lines 41-46. Appellant incorrectly interprets this section as stating that at high speeds of the press, evaporation is relatively less than when the press is started. However, Appellant is misconstruing the teaching of Preuss et al. Preuss et al. state:

> "Such independent drive permits programming for an increased supply of dampening fluid when the press is started ***or*** for a reduced supply at high speeds of the press as evaporation is then relatively lower." (Emphasis added.)

Appellant has mistakenly related the statements on either side of the 'or.' Appellant has interpreted the second part of this sentence as stating "for a reduced supply at high speeds of the press as evaporation is then relatively lower than when the press is started." However, as one having ordinary skill in the art would understand and appreciate, the second part of the sentence could be rewritten as "for a reduced supply at high speeds of the press as evaporation is then relatively lower *than at low speeds of the press*."

Taking the correct interpretation of this sentence of Preuss et al. then, one having ordinary skill in the art would learn from Preuss et al. that the higher the press speed, the *relative* supply of dampening solution to press speed is *lower*. Therefore, as the press speed increases, the *relative* supply of dampening solution should decrease. As stated in the rejection, and unchallenged by Appellant, at high press speeds, the first and second rollers would inherently need lower speeds (than at lower press speeds).

Therefore, the limitation of rotating the first and second rollers at a speed lower than the forme cylinder is still deemed to be met by the statement of obviousness, as outlined in the above rejection.

Finally, Appellant asserts that the flow chart given to aid in understanding of the obviousness rejection incorrectly displays the teachings of Preuss et al. Specifically, Appellant argues that the printing job needs for dampening fluid are not dependent on the speed of the form cylinder.

However, Appellant admits (at the bottom of page 18 of Appellant's Brief) that Preuss et al. teach selecting a division of the slippage (which inherently selects a specific slippage between the first and second rollers) in accordance with the specific requirements of the printing job. Furthermore, Appellant admits that Preuss et al. teach that the supply of dampening fluid can be increased or decreased depending on the speed of the press (middle paragraph on page 18 of Appellant's Brief).

The requirements of the print job inherently include the speed at which the press is operated (i.e., when more prints are required, the press is operated at a higher speed). The speed at which the press is operated depends upon, if it is not defined by, the speed of the plate cylinder (i.e., when more prints are required, the plate cylinder must be operated at a higher speed in order to produce more prints).

Therefore, since Preuss et al. teach changing the flow, *or amount,* of the dampening fluid by changing the slippage, and further teach changing the dampening fluid amount in response to the print needs (which inherently means the speed of the

plate cylinder), Preuss et al. teach, *at the very least* ***implicitly***, "changing the dampening fluid supply by said slippage regulation in response to the speed of said forme cylinder."

Therefore, it is believed that the proper analysis of the prior art and of the general knowledge of one having ordinary skill in the art has been applied in the obviousness rejection of Appellant's claim 102.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Joshua Zimmerman

Conferees:

Judy Nguyen

/Judy Nguyen/

Supervisory Patent Examiner, Art Unit 2854

David Blum/David S Blum/

TQAS Appeal Specialist, TC 2800